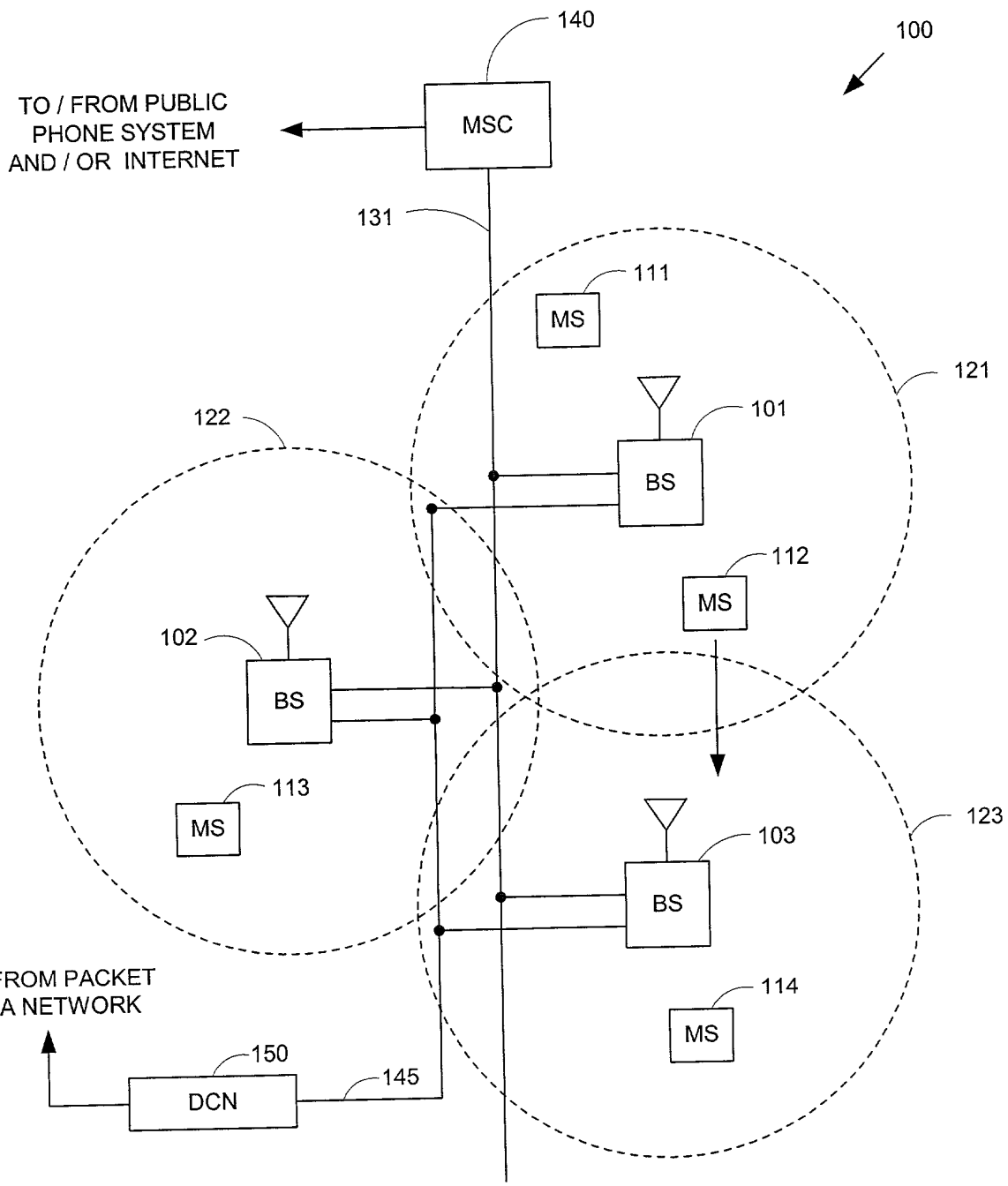
140
100
TO / FROM PUBLIC
PHONE SYSTEM
AND / OR INTERNET
MSC
131
111
MS
121
122
101
BS
112
MS
102
BS
113
MS
123
103
BS
114
MS
TO / FROM PACKET
DATA NETWORK
150
145
DCN

FIGURE 1

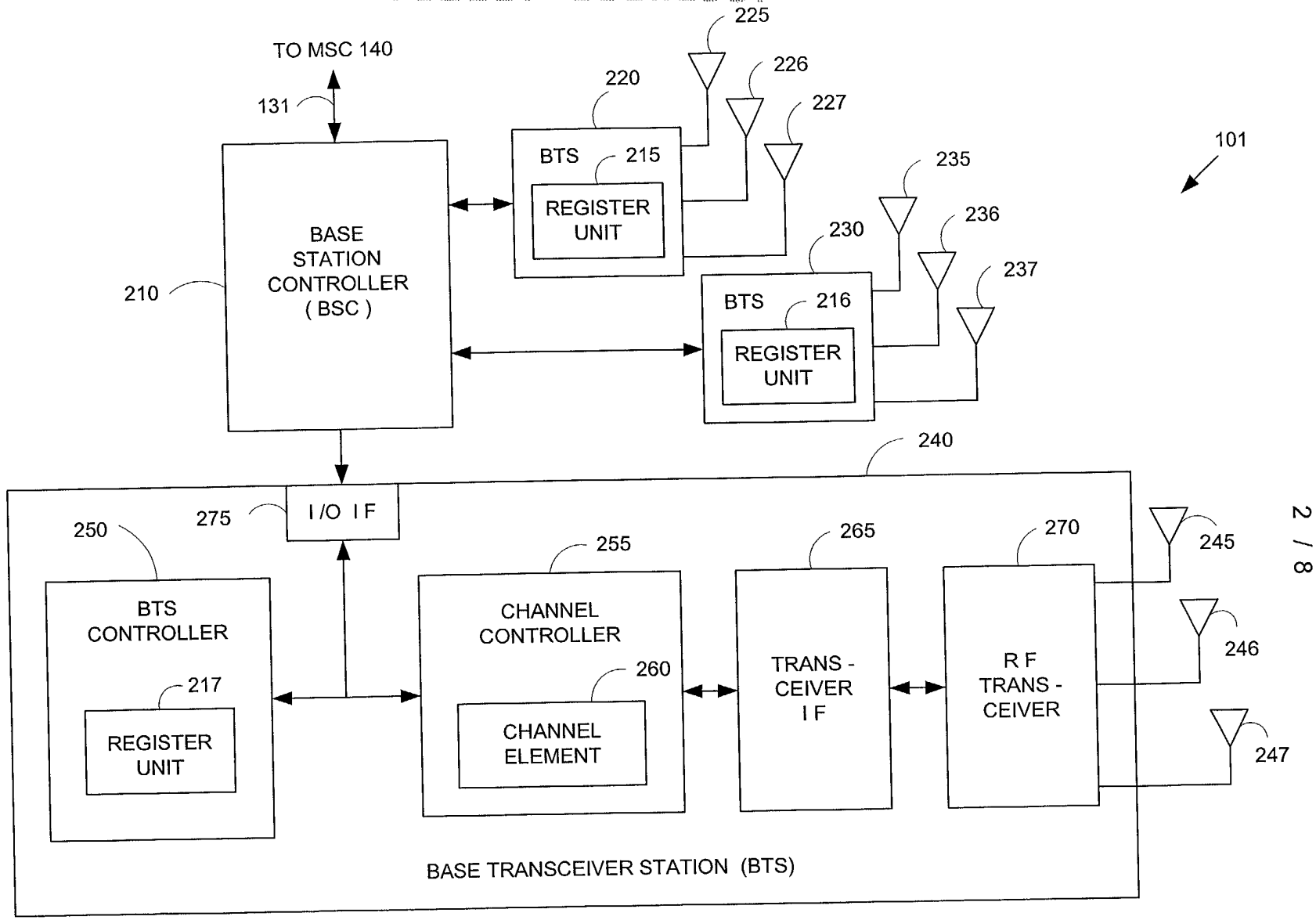
TO MSC 140
131
BASE STATION CONTROLLER (BSC)
210
220
BTS
215
REGISTER UNIT
225
226
227
230
BTS
216
REGISTER UNIT
235
236
237
101
240
I/O I F
275
250
BTS CONTROLLER
217
REGISTER UNIT
255
CHANNEL CONTROLLER
260
CHANNEL ELEMENT
265
TRANS - CEIVER I F
270
R F TRANS - CEIVER
245
246
247
BASE TRANSCEIVER STATION (BTS)

FIGURE 2

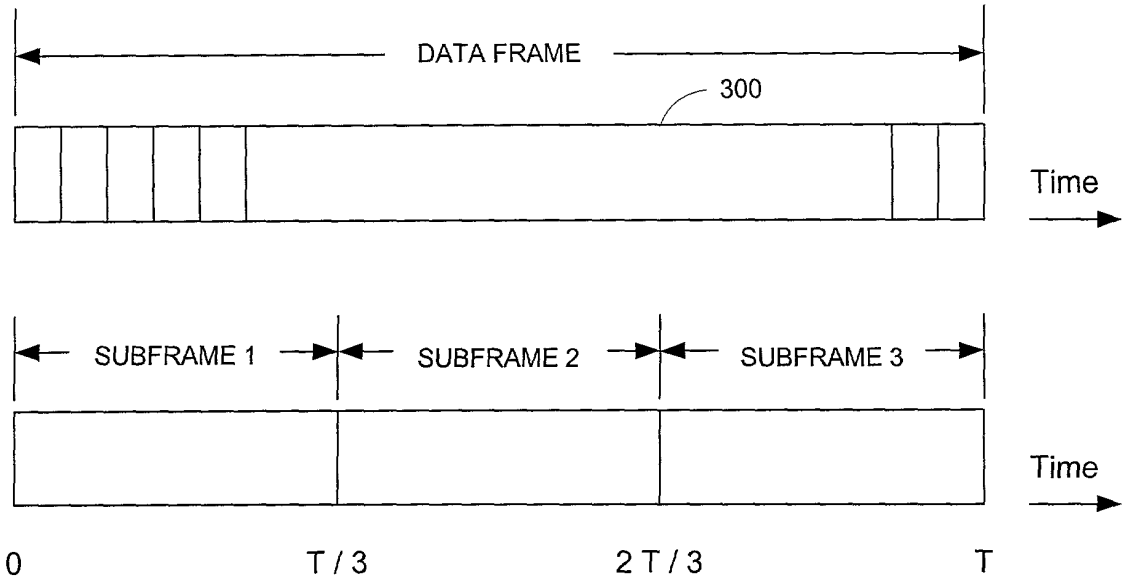

FIGURE 3

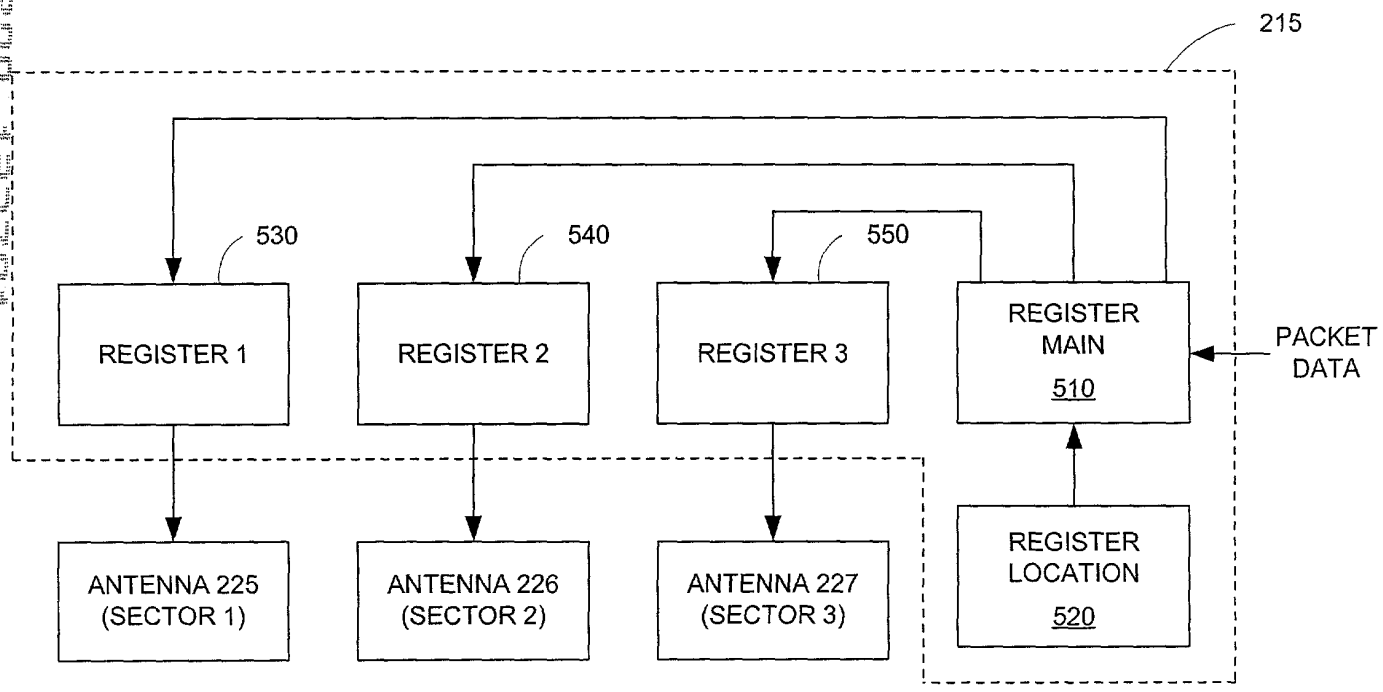

FIGURE 5

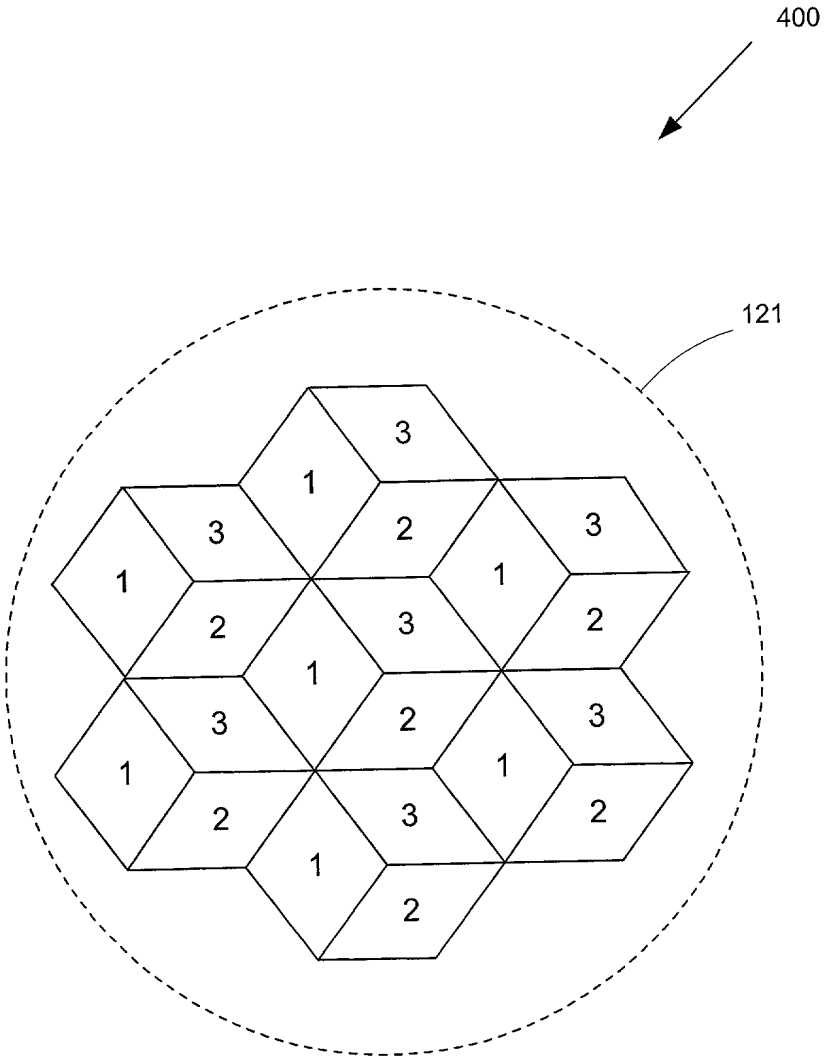

FIGURE 4

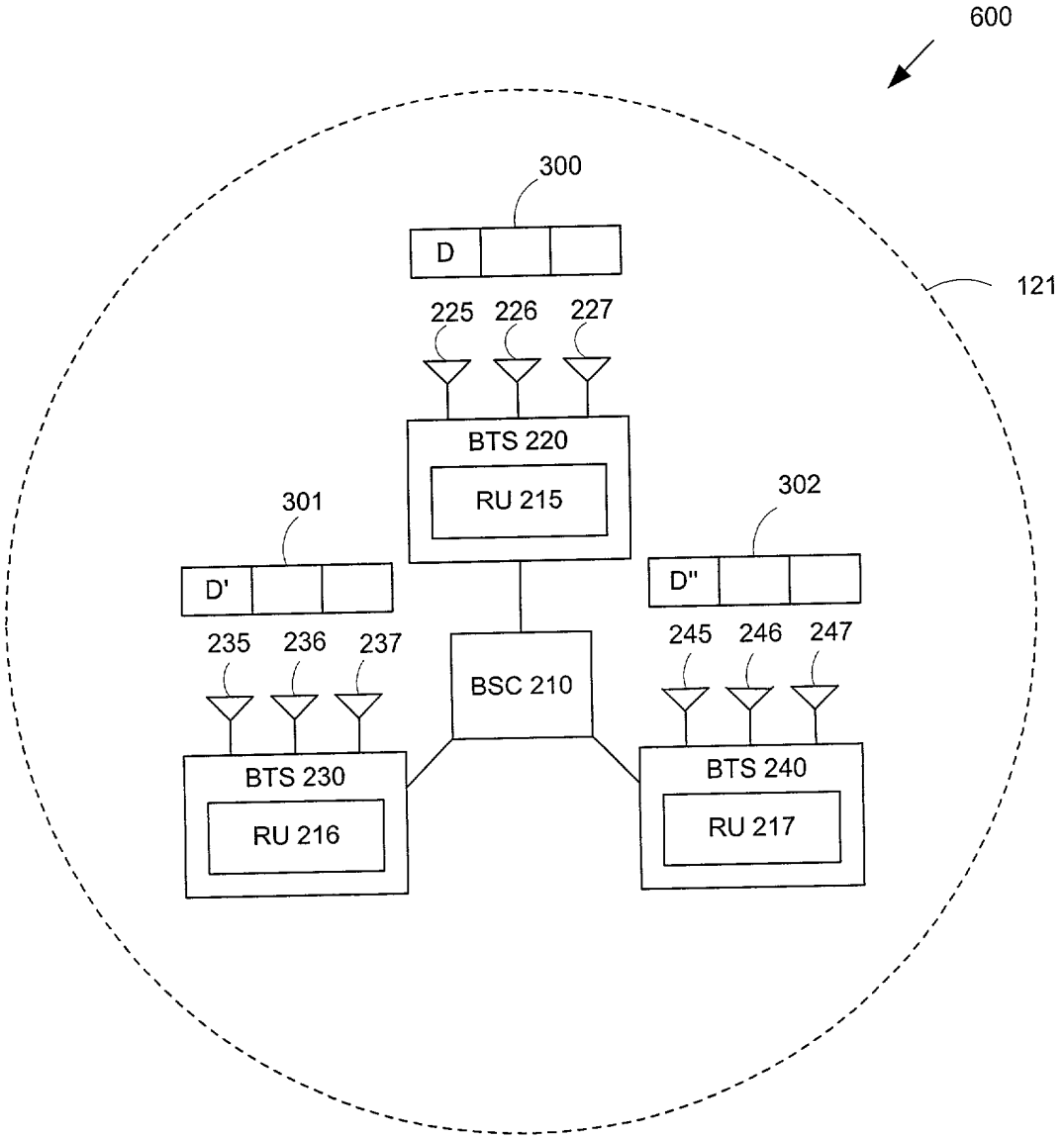
600
300
D
121
225
226
227
BTS 220
RU 215
301
302
D'
D"
235
236
237
245
246
247
BSC 210
BTS 230
RU 216
BTS 240
RU 217

FIGURE 6

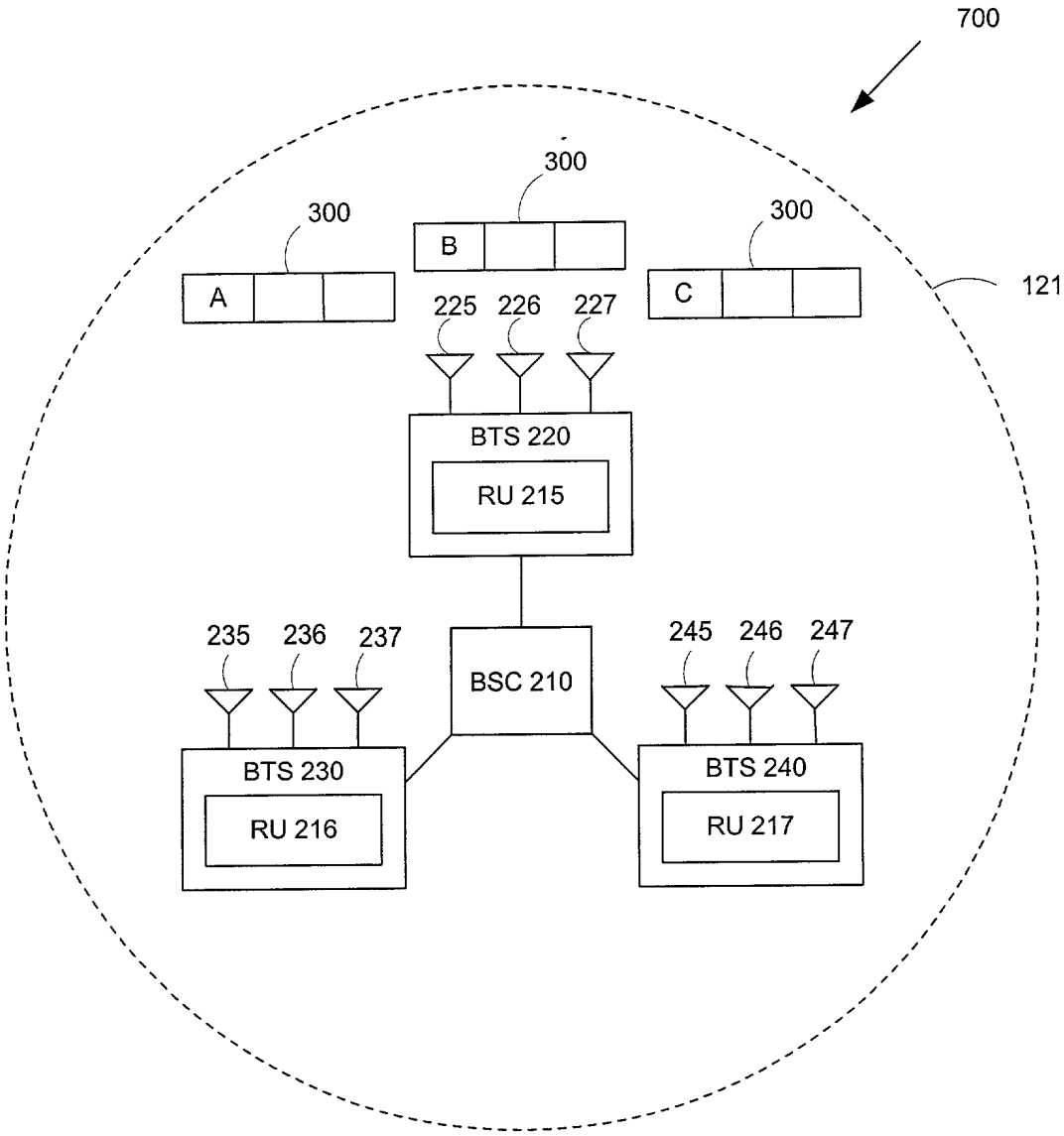
700
300
300
300
B
A
C
121
225
226
227
BTS 220
RU 215
235
236
237
BSC 210
245
246
247
BTS 230
RU 216
BTS 240
RU 217

FIGURE 7

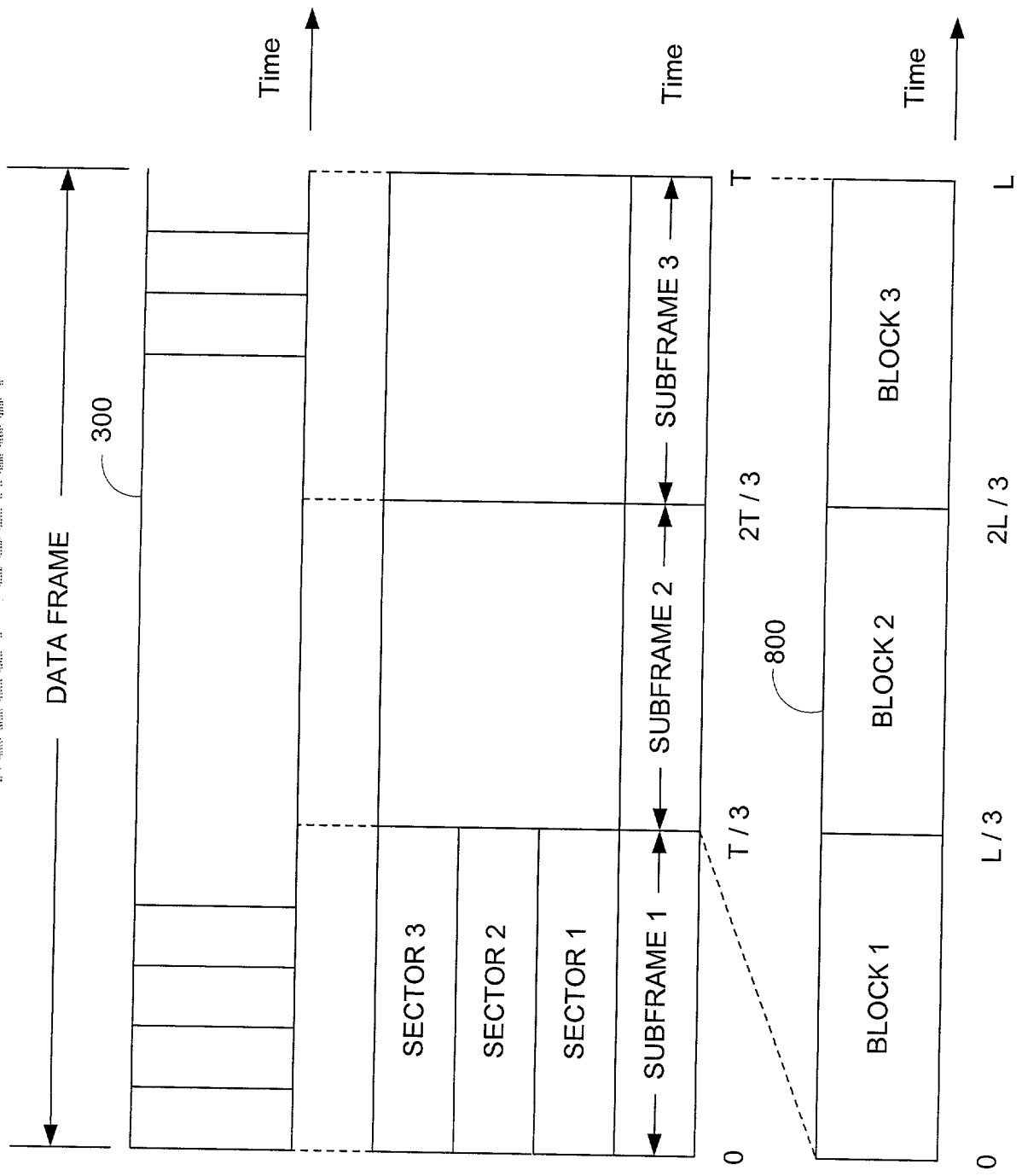
DATA FRAME
300
Time
SECTOR 3
SECTOR 2
SECTOR 1
SUBFRAME 1
SUBFRAME 2
SUBFRAME 3
0
T / 3
2T / 3
T
800
Time
BLOCK 1
BLOCK 2
BLOCK 3
0
L / 3
2L / 3
L
Time

FIGURE 8

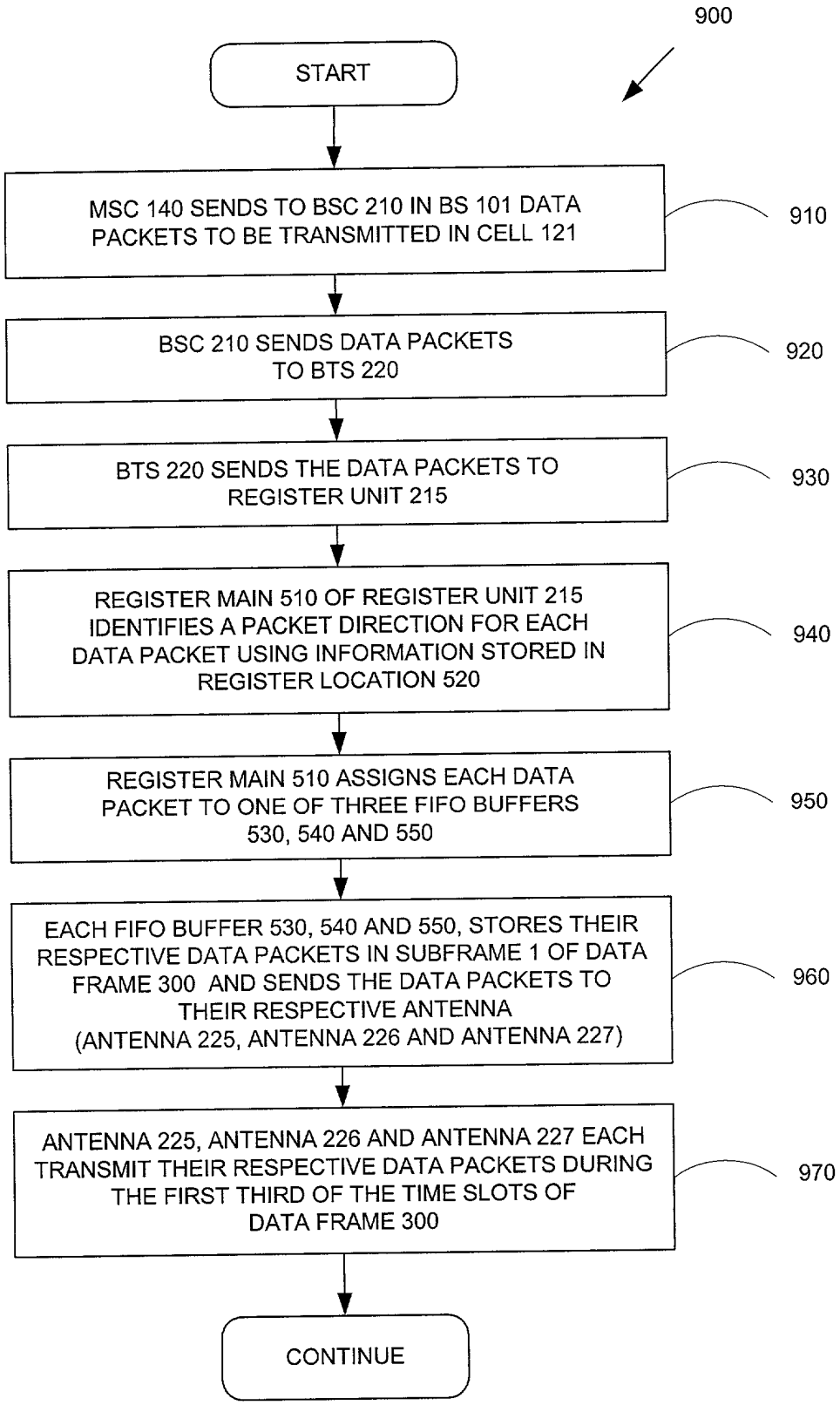
900
START
MSC 140 SENDS TO BSC 210 IN BS 101 DATA PACKETS TO BE TRANSMITTED IN CELL 121
910
BSC 210 SENDS DATA PACKETS TO BTS 220
920
BTS 220 SENDS THE DATA PACKETS TO REGISTER UNIT 215
930
REGISTER MAIN 510 OF REGISTER UNIT 215 IDENTIFIES A PACKET DIRECTION FOR EACH DATA PACKET USING INFORMATION STORED IN REGISTER LOCATION 520
940
REGISTER MAIN 510 ASSIGNS EACH DATA PACKET TO ONE OF THREE FIFO BUFFERS 530, 540 AND 550
950
EACH FIFO BUFFER 530, 540 AND 550, STORES THEIR RESPECTIVE DATA PACKETS IN SUBFRAME 1 OF DATA FRAME 300 AND SENDS THE DATA PACKETS TO THEIR RESPECTIVE ANTENNA (ANTENNA 225, ANTENNA 226 AND ANTENNA 227)
960
ANTENNA 225, ANTENNA 226 AND ANTENNA 227 EACH TRANSMIT THEIR RESPECTIVE DATA PACKETS DURING THE FIRST THIRD OF THE TIME SLOTS OF DATA FRAME 300
970
CONTINUE

FIGURE 9